

CLAIMS

1. A cell line derived from a transgenic mammal comprising:
- (i) a conditional oncogene, transforming gene or immortalising gene or a cell cycle affecting gene; and
- (ii) a cell type specific promoter.
2. A cell line as claimed in claim 1 in which the cell type specific promoter is derived from a secretory tissue.
3. A cell line as claimed in claim 1 which is a neuronal cell line, mammary cell line, liver cell line or kidney cell line.
4. A cell line as claimed in claim 3 in which the cell line is a neuronal cell line and the cell type specific promoter is a NF-L gene promoter.
5. A cell line as claimed in claim 3 in which the cell line is a mammary cell line and the cell type specific promoter is a MMTV gene promoter.
6. A cell line as claimed in any of the preceding claims in which the conditional oncogene, transforming gene or immortalising gene is a SV40tsA58 gene.
7. A cell line as claimed in any of claims 1 to 5 in which the cell cycle affecting gene is a C Erb  $\beta$  2 gene or a TGF  $\alpha$  gene.
8. A cell line as claimed in claim 1 in which the conditional oncogene, transforming gene or immortalising gene is a SV40tsA58 gene

and the cell type specific promoter is a NF-L gene promoter.

9. A cell line as claimed in claim 8 having the ECACC Accession number 96092754.

10. A cell line as claimed in claim 1 in which the conditional oncogene, transforming gene or immortalising gene is a SV40tsA58 gene and the cell type specific promoter is a MMTV gene promoter.

11. A cell line as claimed in claim 10 having the ECACC Accession number 97032720.

12. A cell line as claimed in any of the preceding claims which is derived from a transgenic rat.

13. A method for producing a transgenic mammal, comprising:

- (i) causing a female mammal to super-ovulate;
- (ii) mating or artificially inseminating the female mammal;
- (iii) obtaining the resulting embryo from the female mammal; and
- (iv) incorporating
- (i) a conditional oncogene, transforming gene or immortalising gene or a cell affecting gene; and
  - (ii) a cell specific promoter
- into the genome of the mammalian embryo.

14. A method as claimed in claim 13 wherein the transgenic mammal is a rat and wherein the female rat

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is made to super-ovulate by supplying her with a regular supply of Follicle Stimulating Hormone (FSH) prior to mating.

15. A method as claimed in claim 14 wherein the FSH is supplied continuously.

16. A method as claimed in claims 14 or 15 wherein the supply of FSH is from 2mg to 8mg.

17. A transgenic mammal whose germ cells and somatic cells contain

(i) a conditional oncogene, transforming gene or immortalizing gene or a cell cycle affecting gene; and

(ii) a cell type specific promoter as a result of chromosomal incorporation into the mammalian genome or into the genome of an ancestor of said mammal.

18. A transgenic mammal as claimed in claim 17, wherein the mammal is a rat and the cell cycle affecting gene is a *c-Erb B2* gene or a *TGF  $\alpha$*  gene.

19. A method of testing a material suspected of being a carcinogen, said method comprising exposing a mammal produced according to a method of the invention or an ancestor thereof or cells or tissue from a cell line of the invention, to said material and detecting neoplasms as an indication of carcinogenicity.

20. A method of testing a material suspected of conferring protection against the development of neoplasms, said method comprising treating a mammal

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produced according to a method of the invention or an ancestor thereof or cells or tissues from a cell line of the invention with said material and detecting a reduced incidence of development of neoplasms, compared to an untreated mammal, as an indication of said protection.

21. A method of providing a cell line comprising culturing a somatic cell obtained from a transgenic mammal or an ancestor thereof according to the invention.

22. A cell derived from a cell line obtained from a transgenic mammal or an ancestor thereof according to the invention.

23. A method of providing a transgenic tissue comprising culturing a somatic cell obtained from a transgenic mammal or an ancestor thereof according to the invention.

24. A tissue derived from a somatic cell obtained from a transgenic mammal or an ancestor thereof according to the invention.

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